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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,017	08/21/2001	Toru Murata	Q65899	6073

7590 03/07/2005

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EXAMINER	
BRIER, JEFFERY A	

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/933,017	MURATA, TORU	
	Examiner	Art Unit	
	Jeffery A Brier	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12 and 15-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12 and 15-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/06/2005 has been entered.

Response to Amendment

2. The amendment filed on 01/06/2005 has been entered.

Response to Arguments

3. Applicants arguments filed on 01/06/2005 have been fully considered, however, they are deemed not to be persuasive.

On page 12 applicant expresses several arguments concerning Ethernet and Yasukawa. Yasukawa at column 10 line 25 to column 11 line 19 describes various network.

With regard to the argument concerning 10 baseT please see the definition of Ethernet found at http://www.projectordealers.com/bprojglossary.html

> **Ethernet**
> A hardware standard used for networking. Often used to connect a projector to a remote PC using proprietary software. Current Ethernet standards include 10baseT and 100baseT Ethernet.

With regard to the argument concerning 10 base2 please see the definition given for Ethernet at http://www.webopedia.com/TERM/1/10Base_2.html

> 10Base-2
> One of several adaptations of the Ethernet (IEEE 802.3) standard for Local Area Networks (LANs). The 10Base-2 standard (also called *Thinnet*) uses 50 ohm coaxial cable (RG-58 A/U) with maximum lengths of 185 meters. This cable is thinner and more flexible than that used for the 10Base-5 standard. The RG-58 A/U cable is both less expensive and easier to place.

With regard to the argument concerning 10 base in general please see the definition given for 10 base5 at http://www.webopedia.com/TERM/1/10Base5.html

> 10Base5
> The original cabling standard for Ethernet that uses coaxial cables. The name derives from the fact that the maximum data transfer speed is **10** Mbps, it uses **base**band transmission, and the maximum length of cables is **5**00 meters.
> 10Base5 is also called thick *Ethernet, ThickWire,* and *ThickNet.*

With regard to the Ethernet arguments in general see the definition of Ethernet at

http://www.webopedia.com/quick_ref/EthernetDesignations.asp

Ethernet Designations

IEEE 802.3 specifies a series of standards for telecommunication technology over Ethernet local-area networks. The following chart details the different Ethernet flavors and how they differ from one another.

Designation	Description
10Base-2	10 Mbps baseband Ethernet over coaxial cable with a maximum distance of 185 meters. Also referred to as *Thin Ethernet* or *Thinnet* or *Thinwire*.
10Base-5	10 Mbps baseband Ethernet over coaxial cable with a maximum distance of 500 meters. Also referred to as *Thick Ethernet* or *Thicknet* or *Thickwire*.
10Base-36	10 Mbps baseband Ethernet over multi-channel coaxial cable with a maximum distance of 3,600 meters.
10Base-F	10 Mbps baseband Ethernet over optical fiber.
10Base-FB	10 Mbps baseband Ethernet over two multi-mode optical fibers using a synchronous active hub.
10Base-FL	10 Mbps baseband Ethernet over two optical fibers and can include an optional asynchronous hub.
10Base-FP	10 Mbps baseband Ethernet over two optical fibers using a passive hub to connect communication devices.
10Base-T	10 Mbps baseband Ethernet over twisted pair cables with a maximum length of 100 meters.
10Broad-36	10 Mbps baseband Ethernet over three channels of a cable television system with a maximum cable length of 3,600 meters.
10Gigabit Ethernet	Ethernet at 10 billion bits per second over optical fiber. Multimode fiber supports distances up to 300 meters; single mode fiber supports distances up to 40 kilometers.
100Base-FX	100 Mbps baseband Ethernet over two multimode optical fibers.
100Base-T	100 Mbps baseband Ethernet over twisted pair cable.
100Base-T2	100 Mbps baseband Ethernet over two pairs of Category 3 or higher unshielded twisted pair cable.

100Base-T4	100 Mbps baseband Ethernet over four pairs of Category 3 or higher unshielded twisted pair cable.
100Base-TX	100 Mbps baseband Ethernet over two pairs of shielded twisted pair or Category 4 twisted pair cable.
100Base-X	A generic name for 100 Mbps Ethernet systems.
1000Base-CX	1000 Mbps baseband Ethernet over two pairs of 150 shielded twisted pair cable.
1000Base-LX	1000 Mbps baseband Ethernet over two multimode or single-mode optical fibers using longwave laser optics.
1000Base-SX	1000 Mbps baseband Ethernet over two multimode optical fibers using shortwave laser optics.
1000Base-T	1000 Mbps baseband Ethernet over four pairs of Category 5 unshielded twisted pair cable.
1000Base-X	A generic name for 1000 Mbps Ethernet systems.

For more information, visit the IEEE Standards Association home page.

Since Yasukawa's LAN uses Ethernet cables, see column 10 lines 25-31 and the above definitions, used in several Ethernet standards, these Ethernet cables teach to one of ordinary skill in the art that Yasukawa is using an Ethernet Local Area Network or at least suggests using an Ethernet Network. Additionally applicants specification only states the line is Ethernet. Page 21 lines 21-23 of applicant's specification states: *The communication line 4 is assumed to be Ethernet here and transmits the remote control data and the image data which are in a packet form.* Page 11 lines 22-24 of applicant's specification states: *In addition, in the above-mentioned embodiment, the communication line is assumed to be Ethernet. The above-mentioned embodiment is not limited to Ethernet.* When applicants same analysis of Yasukawa is applied to applicants own specification then applicants own specification does not explicitly state

applicant's network is Ethernet. Thus, applicant's own specification teaches to one of ordinary skill in the art the lines are Ethernet and does not explicitly state the communication standard is Ethernet. Therefore, Yasakawa's communication line 33 and applicant's communication line 4 are very similar in that they are Ethernet lines. This teaches to one of ordinary skill in the art that applicant's claim to Ethernet network and Yasakawa's network are the same.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-12 and 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita, U.S. Patent No. 5,782,548, in view of Yasukawa, U.S. Patent No. 6,437,786.

Claims 1-12:

Miyashita, U.S. Patent No. 5,782,548, teaches a projector and associated remote control connected via a network to a PC.

Yasukawa, U.S. Patent No. 6,437,786, teaches a LAN connected projector which allows a user via keying input device 11 to enter commands into the projector such as next image. If the next image is not in the projector then the projector sends a

command to the server to supply the next image to the projector, see column 11 lines 3-67 and column 12 lines 28-34 and line 44 to column 13 lines 10 and 30-50.

Miyashita does not explicitly teach the projector and the PC are connected by an Ethernet network.

Yasukawa teaches a projector and PC connected by an Ethernet network.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Miyashita's projector and PC for use in an Ethernet network because an Ethernet network is faster than an RS-232, see the speed limitation of this standard at http://www.sangoma.com/signal.htm

This Sangoma reference article teaches that RS-232 is slower than Ethernet. It teaches to overcome the speed limitations RS-232 is replaced by RS-422 and other balanced interfaces such as Ethernet. A portion of this reference is reproduce below with emphasis added.

The standards for RS-232 and similar interfaces usually restrict RS-232 to 20kbps or less and line lengths of 15m (50 ft) or less. These restrictions are mostly throwbacks to the days when 20kbps was considered a very high line speed, and cables were thick, with high capacitance. (emphasis added)
However, in practice, RS-232 is far more robust than the traditional specified limits of 20kbps over a 15m line would imply. Most 56kbps DSUs are supplied with both V.35 and RS-232 ports because RS-232 is perfectly adequate at speeds up to 200kbps. You may remember the "zero slot LANs" that were popular a few years ago, using RS-232 ports on PCs running at 115kbps. At Sangoma we have successfully used RS-232 (albeit on short cables) at line speeds of over 1.6Mbps.
Interestingly enough, most RS-232 ports on mainframes and midrange computers are capable of far higher speeds than their rated 19.2kbps. Usually these "low speed" ports will run error-free at 56kbps and above.
The 15m limitation for cable length can be stretched to about 30m for ordinary cable, if well screened and grounded, and about 100m if the cable is low capacitance as well. Our standard test cable at Sangoma is an interconnected run of round and flat cable, about 25M in length, with no screening at all. We run error-free on this cabling collection at up to 112kbps.

S-422, RS-485, V.11 and other balanced interfaces.
The limitations of RS-232 are largely eliminated by the balanced line interface.

A pair of wires is used to carry each signal. The data is encoded and decoded as a differential voltage between the two lines. A typical truth table for a balanced interface is as follows:
VA-VB < -0.2v =0
VA-VB > +0.2v=1
As a differential voltage, in principle the interface is unaffected by differences in ground voltage between sender and receiver.
Furthermore, if lines A and B are close together, they will be affected almost identically by external electromagnetic noise. If the lines are also twisted together, then neither line is permanently closer to a noise source than the other. Hence the well known "twisted pair" is extremely effective in eliminating noise from the signal.

Balanced systems are used by LAN topologies like Ethernet and Token Ring. They can support line speeds over 100Mbps and work reliably at distances of several kilometers.(emphasis added)

Therefore to ensure the delivery of images from the PC to the projector during the presentation with less delay of the delivery of the images which will cause less perceptible delay by the audience when the presenter changes the displayed image. One of ordinary skill in the art would select Ethernet over RS-232 to ensure a good presentation occurs.

RS-232C transmits communication control data as taught in the Sangoma reference article which states:

Pins 4 and 5 carry the **RTS** and **CTS** signals. In most situations, RTS and CTS are constantly on throughout the communication session. However where the DTE is connected to a multipoint line, RTS is used to turn carrier on the modem on and off. On a multipoint line, it is imperative that only one station is transmitting at a time. When a station wants to transmit, it raises RTS. The modem turns on carrier, typically waits a few milliseconds for carrier to stabilize, and raises CTS. The DTE transmits when it sees CTS up. When the station has finished its transmission, it drops RTS and the modem drops CTS and carrier together. This is explained further in our tutorial on the SDLC protocol, which uses multipoint lines extensively.

A detailed analysis of claims 1-14 follows.

Claim 1:

Miyashita and Yasukawa teach an electronic presentation system (*Miyashita: see figure 4. Yasukawa: figures 3 and 4*) comprising:

Ethernet communication means (*Miyashita: serial transmission line 50 is a RS-232C network communication line which is a network communication means equivalent to that described by applicants specification because RS-232C allows multiple devices to communicate with any other device or devices connected to the network. Yasukawa: Network 33 and 40. At column 10 line 25 to column 11 line 19 various networks are described. Column 10 lines 25-30 teaches using Ethernet since 10 base 5, 10 base 2, and 10 base T cables are Ethernet cables.*);

a first image and voice display means (*Miyashita: projector 10. Yasukawa: projector 31.*) connected to said communication means in which display control *(cursor*

position control, page advance, page return, etc, column 10 line 65 to column 11 line 15) and communication control (*The remote control controls the communication of the cursor position control, page advance, page return, etc. Additionally as taught by the* Sangoma reference article *RS-232C provides communication control data and data on the RS-232C network.*) through said communication means are controlled by remote control means (*Miyashita: column 9 lines 9-34, remote controller 20 controls the computer's presentation by transmitting signals to the projector 10 which transfers those signals to the computer via serial transmission line 50. This causes display control (cursor position control, page advance, page return, etc, column 10 line 65 to column 11 line 15) and communication control (RS-232C provides communication control data as taught by the* Sangoma reference article.*) to be sent from the projector to the computer. Yasukawa: keying input device 11.*); and

a personal computer (*Miyashita: PC 40. Yasukawa: Pcs 32A, 32B, 41A, 41B*), having its own address code (*Yasukawa: Yasukawa's PCs have their own addresses, see column 10 line 64 to column 11 line 2*), provided with a second image (*Miyashita: display 44. Yasukawa: see figures 3 and 4, PCs 32A, 32B, 41A, 41B have their own display means*) and voice (*Miyashita: inherently Miyashita includes voice display means since the computer is displaying a presentation having both visual and audio. Yasukawa: since the computer is displaying a presentation having both visual and audio then the PCs have both image and voice display means.*) display means connected to said communication means (*Miyashita: indirectly display 44 is connected to serial transmission line 50. Yasukawa: the PC's displays are connected to network*

bus 33 and 40 via the PC's network means.) and different from said first image and voice display means placed in a position different from the position placing said first image and voice display means (*Miyashita: the location of the computer's display means is different than the location of the projector's display means since the projector and computer are physically separate devices, also note column 1 lines 41-54. Yasukawa: network 33 and 40 is discussed as either local intranet or the internet.*), and input means (*Miyashita: keyboard 46 and mouse 48. Yasukawa: this claim does not state what the input means is, thus, any input means of the PCs meets the broad claim limitation such as the network communication means.*);

wherein said remote control means captures the display contents displayed by said personal computer on said second image and voice display means to display said captured display contents on said first image and voice display means at the same time (*Miyashita: at column 10 line 51 to line 18 many mouse commands may be programmed into the remote controller that will perform the function performed by the user using the mouse at the PC described at column 1 lines 10-38. This selection process causes the personal computer to capture displayed image on the personal computer and display it on the projector. At column 11 lines 4-19 page return and page advance buttons on the remote control are described. When the operator presses page return or page advance the system will return or advance the page displayed by the personal computer, capture the page, and transmit the page to the projector, see column 12 lines 28-36.).* It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Miyashita's projector and PC for use in an Ethernet

network because an Ethernet network is faster than an RS-232, see the above discussion of RS-232 and Ethernet. This will ensure the delivery of images from the PC to the projector during the presentation with less delay of the delivery of the images which will cause less perceptible delay by the audience when the presenter changes the displayed image. One of ordinary skill in the art would select Ethernet over RS-232 to ensure a good presentation occurs.

Claim 2:

Miyashita teaches the electronic presentation system according to claim 1, wherein said remote control means comprises a remote control transmitter (*see figure 5, infrared light emitting means 36 transmits signals*) sending a sending signal of a code corresponding to a depressed button (*column 9 lines 22-31*) and means for converting said sending signal of said remote control transmitter to a communication signal of said communication means (*signal processor 60, computation control means 62 and I/O interface 66 converts the infrared signal into a signal compatible with serial transmission line 50*) and sending the communication signal (*via interface 66*); wherein said personal computer comprises means for converting said sending signal of said remote control transmitter sent through said communication means to a signal (*I/O interface 72*) equivalent to the output signal of the input means (*I/O interface 74 generates signals from input means 46 and 48 equivalent to the signals generated by I/O interface 72, see column 9 lines 66-67 and column 10 lines 1-5*) provided in said personal computer,

means for selecting the previously created display contents displayed on said second image and voice display means (*the user is enabled to select an image on the computer display 44 for display by projector 10 such as provided by the page advance button, column 11 line 5*), by said converted signal equivalent to the output signal of said input means (*column 10 lines 1-5*), and means for converting a display signal of said selected display contents displayed on said second image and voice display means to a communication signal of said communication means at the same time and sending the communication signal (*I/O interface 72 transmits the display signal corresponding to the selected display contents*) to the projector; wherein said remote control means further comprises means (*such as the buttons described at column 11 lines 4-6*) for sending the display signal of said second image and voice display means sent through said communication means to said first image and voice display means.

Claim 3:

Miyashita teaches the electronic presentation system according to claim 2, wherein the selection of the previously created display contents displayed on said second image and voice display means, done by the signal equivalent to said converted output signal of said input means is executed by basic software (*bios is in all computers as well as operating system 100, column 9 lines 61-67*) installed in said personal computer (*personal computer 40*) and application software (*application software 120, column 9 lines 61-67*) operated under said basic software and used to previously create said display contents.

Claim 4:

Miyashita teaches the electronic presentation system according to claim 2, wherein said communication means is a wired communication system (*Miyashita: the serial transmission line 50 is described as RS-232, column 8 lines 10-13, which is typically a wired communication system. Yasukawa: the term LAN includes both wired and wireless networks.*) .

Claim 5:

Miyashita teaches the electronic presentation system according to claim 2, wherein said communication means is a wireless communication system (*Miyashita: the serial transmission line 50 is described as RS-232, column 8 lines 10-13, which is typically a wired communication system, however, wireless RS-232 is known and used in wireless communications systems. Yasukawa: the term LAN includes both wired and wireless networks.*).

Claim 6:

The PC is remotely connected in both Miyashita and Yasukawa to the projector, thus, second image and voice display means is remotely connected to the first image and voice display means.

Claim 7:

This claim is a device claim version of means plus function claim 1 and is rejected for the reasons given for claim 1.

Claim 8:

This claim is a device claim version of means plus function claim 6 and is rejected for the reasons given for claim 6.

Claim 9:

This claim is a device claim version of means plus function claim 2 and is rejected for the reasons given for claim 2.

Claim 10:

This claim is a device claim version of means plus function claim 3 and is rejected for the reasons given for claim 3.

Claim 11:

This claim is a device claim version of means plus function claim 4 and is rejected for the reasons given for claim 4.

Claim 12:

This claim is a device claim version of means plus function claim 5 and is rejected for the reasons given for claim 5.

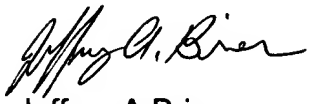
Claims 15-22:

On page 12 applicant states new claims 15-22 recite similar features of claim 1. Therefore they are rejected for the reasons given for claim 1.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A Brier whose telephone number is 703-305-4723 until the move and after the move the telephone number will be 571-272-7656. The examiner can normally be reached on M-F from 6:30 to 3:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (703) 305-4713). The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffery A Brier
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Art Unit 2672